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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/048,226	05/13/2002	Hiroyuki Hayashikawa	2002-0072A	3380
513	7590	10/15/2003		
WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021			EXAMINER NGUYEN, TUAN N	
			ART UNIT 2828	PAPER NUMBER

DATE MAILED: 10/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/048,226

Applicant(s)

HAYASHIKAWA ET AL.

Examiner

Tuan N Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.



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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6,7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restriction

1. Applicant's election without traverse of species II in Paper No. 9 is acknowledged.

Drawings

2. Figures 25-33 should be clearly designated by a legend such as – Prior Art – because only that which is old is illustrated. See MPEP & 608.02(g).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 8-15 are rejected under 35 U.S.C 112, second paragraph, as being indefinite, vague, and confusing for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, **for example**.

Claims 8-10 recite a laser oscillator comprising: a discharge tube and a laser gas passage for supplying laser gas to said discharge tube wherein the diameter and width of the discharge tube is within a given range. There is insufficient structure and functional relationship to conform a laser oscillator, which render the claims vague and indefinite. Claims 11 and 12 are rejected base on the same reason.

Claim 13 recites a laser oscillator comprising: a discharge tube, electrodes at both end of discharge tube, a high voltage power supply to said electrodes, a hole opened in the discharge hole has an auxiliary electrode, and the auxiliary electrode connected to one of said electrode via

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a high resistance resistor. It is not clear if the electrode outside or within the shielded gas discharge tube or indefinite as to where the hole is opened in the discharge tube. There is insufficient structure and functional relationship to conform a laser oscillator, which render the claims vague and indefinite. Claims 14 and 15 are rejected base on the same reason.

Claim Rejections - 35 USC § 102

5. The following is a quotation of 35 U.S.C. 102(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claim 13 are rejected under 35 U.S.C. 102(a) as being unpatentable over Prior Art Figures 25-33.

With respect to claim 13, PRIOR ART (Figures 25, 26, 28, 31, 32: 1-5, 55,56,156, 58,158), show a laser oscillator having a discharge tube with gas, and a gas passage. Figures 26 further shows a high power supply applying to the electrodes (Fig 26: 2-4); wherein a hole is opened in the discharge tube with auxiliary electrode disposed within the hole (F 31: 156), and auxiliary electrode is connected to one electrode via a high resistance resistor (F 31: 3, 158).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or non-obviousness.
8. Claims 8-12, 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art Figures 25-33.

With respect to claims 8-12 PRIOR ART (Figures 25, 26, 28, 31, 32: 1-5, 55,56,156, 58,158) show a laser oscillator having a discharge tube with gas, and a gas passage. The claims further require the diameter, width, and height of discharge tube and gas passage meets a given dimension. It is inherently obvious that the discharge tube and its gas passage have a diameter, width and height (Fig 28). Discovering the optimum or workable ranges of the discharge tube and gas passage to fit the laser oscillator involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Page 1 line 22-23 of the BACKGROUND ART disclosed the discharge tube made up dielectric (non conductive) material.

With respect to claims 14-15, PRIOR ART (Figures 25, 26, 28, 31, 32: 1-5, 55,56,156, 58,158), disclose the above and further require a given distance between the hole in the discharge tube and the electrodes, or the resistance resistor is 1MOhm to 100MOhm. Discovering the optimum placement distance or workable ranges of the hole and electrode or resistance value involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

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Citation of Pertinent References

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. It is cited primarily to show the product of the instant invention.

Bakowsky et al. (US 4573162), Yamene et al. (UUS005450435A), Hongu (US006208676B1), Hayashikawa et al. (US006580742), disclose a laser oscillator having a discharge tube with gas, and a gas passage.

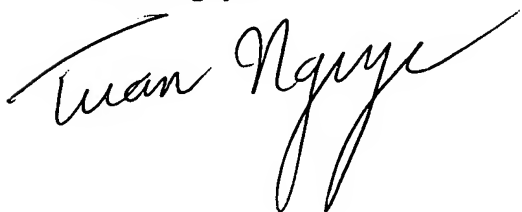
Communication Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan N Nguyen whose telephone number is (703) 605-0756. The examiner can normally be reached on M-F: 7:30 - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.

Tuan N. Nguyen



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